

PUERTO RICO GOVERNMENT EMPLOYEES RETIREMENT SYSTEM

June 30, 2017 Actuarial Valuation Report

PRGERS net assets became negative in the 2014-2015 fiscal year. PRGERS gross assets as of June 30, 2017 are less than one year of expected benefit payments.

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March 26, 2019

Mr. Luis M. Collazo Rodríguez, Esq.
Administrator
Puerto Rico Government Employees and
Judiciary Retirement System Administration
437 Ponce de León Avenue
Hato Rey, PR 00918

Dear Mr. Collazo:

This report presents the results of the actuarial valuation of the Puerto Rico Government Employees Retirement System (PRGERS), a cost-sharing multiple employer defined benefit pension plan, as of June 30, 2017. Section I contains highlights of the valuation including a general discussion. The subsequent Sections contain schedules summarizing the underlying calculations, asset information, participant data, plan benefits and actuarial assumptions and methods.

Purpose

The main purposes of this report are:

- to present information pertaining to the operation of the plan for inclusion in financial statements based on relevant Statements of the Government Accounting Standards Board (GASB);
- to review the experience under the plan since the previous valuation; and
- to assess the relative funded position of the plan.

The use of this report for purposes other than those stated above may not be appropriate and should be reviewed with Milliman.

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The report was prepared solely to provide assistance to the Commonwealth of Puerto Rico Government Employees Retirement System for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning PRGERS' operations, and uses PRGERS' data, which Milliman has not audited. Milliman and PRGERS do not intend to benefit and assume no duty or liability to other parties who receive this report. Milliman and PRGERS recommend that any third party recipient of this report be aided by its own actuary or other qualified professional when reviewing the Milliman report. Any distribution of this report should be made in its entirety.

Data Reliance

In performing this analysis, we relied on the census data, asset information, and other information (both written and oral) provided by the System. We have not audited or verified the census data, asset information, or other information. To the extent that any of these are inaccurate or incomplete, the results of this valuation may likewise be inaccurate or incomplete.

We did not audit the data used in our analysis, but did review it for reasonableness and consistency and have not found material defects in the data. It is possible that material defects in the data would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

The asset information used for the valuation was taken from unaudited financial statements as of June 30, 2017 provided by PRGERS on December 5, 2018 and is subject to change upon audit.

Future Measurements

This valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

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Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as the following:

- Plan experience differing from the actuarial assumptions;
- Future changes in the actuarial assumptions;
- Increases or decreases expected as part of the natural operation of the methodology used for these measurements; and,
- Changes in the plan provisions or accounting standards.

Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such measurements.

Certification

We hereby certify that, to the best of our knowledge, this report is complete and accurate and all costs and liabilities were determined in conformance with generally accepted actuarial principles and practices which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting recommendations of the American Academy of Actuaries and are based on actuarial assumptions and methods adopted by the System. All of the actuarial assumptions were developed by Milliman in consultation with PRGERS. We believe that the actuarial assumptions and methods used in this actuarial valuation are reasonable for the main purposes of this report as stated herein.

Actuarial computations presented in this report are for purposes of fulfilling financial accounting requirements under the GASB Statements 45 and 67. The calculations in the enclosed report have been made on a basis consistent with our understanding of the plan provisions described in Section VII of this report, and of the applicable GASB Statements. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

This valuation reflects the law in effect as of June 30, 2017, as required by GASB accounting. As a known event, the impact of Act 106-2017, effective August 23, 2017 is reflected as well. The impacts of Act 211-2015 and Act 170-2016 are not yet fully known, along with any other prospective legislative changes.

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SECTION I – SUMMARY

ARC for this benefit has been calculated based on an assumed investment return rate of 2.90% based on the asset allocation of the Commonwealth's general assets that are used to pay this benefit.

We note that, as a cost-sharing multiple employer plan, PRGERS is not required to report a Net OPEB Obligation. In accordance with paragraph 23 of GASB 45, the employers that participate in the plan should recognize annual OPEB expense equal to their contractually required contributions to the plan. The employers do not have an Annual Required Contribution (ARC) or a Net OPEB Obligation. (PRGERS reports an ARC for the system as a whole, not separate ARCs for the individual employers.) Any difference between contributions required and contributions made would produce an OPEB liability or asset at the employer level.

Note that GASB issued GASB 75 in June 2015 which makes changes to GASB 45 similar to how GASB 25/27 were updated by GASB 67/68. GASB 75 is effective beginning with the 2017-2018 fiscal year, unless earlier adoption occurs.

GASB 67 Projection to Determine Date of Depletion (if any)

GASB 67 requires that a projection be performed for the System to determine a date of depletion, if any, and the resulting effective discount rate. This complex projection is used to determine the point at which the System is expected to deplete assets per GASB 67. The analysis includes a projection of member and employer contributions, benefit payments, and administrative expenses attributable to current members. Amounts attributable to members hired in the future are excluded except to the extent that employer contributions exceed the cost of benefits for those future members. *Because the date of depletion projection does not incorporate all projected cash inflows to and outflows from the System, the results will differ from those in a comprehensive cash flow projection that models all inflows and outflows. In other words, the GASB 67 date of depletion is not the same as the date that the System would be expected to exhaust assets.*

Once a depletion date has been determined, it is used as an input in the determination of the accounting liability as follows:

- The present value of all future benefits for GASB 67 accounting purposes is determined as follows:
 - For projected benefit payments occurring prior to the date of depletion, the discount rate is based on the System's expected return on assets.

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- For projected benefit payments occurring after the date of depletion, the discount rate is based on a tax-free municipal bond index.
- Based on the resulting present value of all future benefits for GASB 67 accounting purposes, a single equivalent interest rate can be imputed that yields the same present value.

GASB 67 and its implementation guide do not address the mechanics of the date of depletion projection when the retirement system is the issuer of Pension Obligation Bonds (POBs) – e.g. whether the date of depletion projection should be performed on a gross assets or net assets basis. Typically, the governmental sponsor issues the POBs and contributes the proceeds to the retirement system. However, PRGERS issued the POBs and is responsible for repaying the interest and principal on the bonds. As directed by the Treasury Department, the Government Development Bank, and the System (after consultation with the auditor) at the outset of GASB 67, the asset basis for the date of depletion projection is the System's net assets (the gross assets less the Pension Obligation Bond proceeds). On this basis, net assets were exhausted in the 2014-2015 fiscal year and no calculation needs to be performed, as the tax-free municipal bond index applies in all years, and is thus the single equivalent interest rate that is used as the discount rate in the determination of the Total Pension Liability.

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SECTION VIII – SUMMARY OF ACTUARIAL ASSUMPTIONS AS OF JUNE 30, 2017

Investment Return: Not applicable due to pay-as-you-go funding. As of June 30, 2016 was 6.55% per annum, net of investment expenses (based on the System's investment policy, including target asset allocation and expectations regarding the loan portfolio, and Milliman's capital market assumptions as of June 30, 2016)

Municipal Bond Rate: 3.58% per annum (Bond Buyer General Obligation 20-Bond Municipal Bond Index)

GASB 67 discount rate: 3.58% per annum

GASB 45 discount rate: 2.90% per annum. Based on the Commonwealth's asset allocation for the general assets that are used to pay this benefit and Milliman's capital market assumptions as of June 30, 2017.

Compensation Increases: 3.0% per year. No compensation increases are assumed until July 1, 2021 as a result of the Act 3-2017 four year extension of the Act 66-2014 salary freeze and the current general economy. Based on professional judgment and System input.

Defined Contribution Hybrid Contribution Account: No member contributions will be made to the Defined Contribution Hybrid Contribution Account after June 30, 2017. Based on the liquidation of System assets and move to pay-as-you-go funding under Act 106-2017, no future interest credits are assumed after June 30, 2017. During 2016-2017, the Defined Contribution Hybrid Contribution Account as of July 1, 2016 was assumed to increase by member contributions of 10% of Compensation and 5.24% annual investment return.

Basis for demographic assumptions: The post-retirement healthy and disabled mortality assumptions used in this valuation are based on a study of plan's experience from 2007 to 2012 and updated expectations regarding future mortality improvement. Most other demographic assumptions used in this valuation are based on a 2009 experience study using data as of June 30, 2003, June 30, 2005, and June 30, 2007. Certain demographic assumptions (e.g. termination and retirement) were impacted by the Act 3 pension reforms and were revised based on the new retirement eligibility and expected future experience. All assumptions were reviewed with PRGERS staff for reasonableness and are documented in this Section.

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